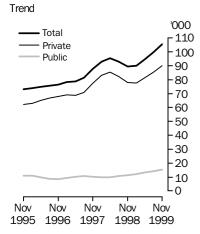


Job Vacancies



JOB VACANCIES

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) THURS 13 JAN 2000

NOVEMBER 1999 KEY FIGURES

TREND ESTIMATES		% change	% change	
		Aug 1999	Nov 1998	
	Nov 1999	to Nov 1999	to Nov 1999	
Job vacancies—'000				
Private sector	90.1	5.5	15.6	
Public sector	15.4	7.2	35.4	
Private and public sectors	105.5	5.8	18.0	

NOVEMBER 1999 KEY POINTS

TREND ESTIMATES

- Total job vacancies in November 1999 were 105,500, an increase of 5.8% from August 1999, and an increase of 18.0% from November 1998.
- The number of private sector job vacancies increased to 90,100 in November 1999, an increase of 5.5% from August 1999.



• The number of job vacancies in the public sector was 15,400 in November 1999, an increase of 7.2% from August 1999.

 For further information about these and related statistics, contact
 Brad Pottinger on Perth 08 9360 5304 or any
 ABS office shown on the back of this publication.

NOTES

FORTHCOMING ISSUES

ISSUE EXPECTED RELEASE DATE

Feb 2000 30 March 2000 May 2000 29 June 2000

CHANGES IN THIS ISSUE

Improvements to collection forms and procedures for the Job Vacancies Survey began during August 1999 and were completed in November 1999. In addition, the cessation of the overtime component of the survey has necessitated changes to survey operations.

Coinciding with these collection improvements, a change to the survey estimation method was introduced to account for new businesses. Please refer to paragraph 8 of the Explanatory Notes for further information.

These changes have resulted in improved quality estimates, at a markedly higher level than reported previously. Consequently, previously published estimates for August 1999 have been revised in this issue to reflect the complete impact of these changes.

The effect of these quality improvements on the estimates indicates that adjustments to previously published estimates are also required in order to maintain consistency and compatibility over time. This issue contains adjusted estimates back to August 1998.

Adjustments to earlier data not published in this issue are available on PC AUSSTATS and on request. For contact information, please refer to the front cover of this issue.

For more details of the improvements referred to above and the method of adjustment applied to previous estimates, please refer to paragraphs 8 - 12 of the Explanatory Notes on page 9.

In addition, a reanalysis of seasonal adjustment factors was undertaken for November 1999. See paragraphs 15 and 18 of the Explanatory Notes.

SYMBOLS AND OTHER USAGES

- * Subject to sampling variability too high for most practical purposes. See paragraph 6 of the Technical Notes on page 12.
- Nil or rounded to zero

Dennis Trewin Acting Australian Statistician



JOB VACANCIES, States & Territories (a)

	ORIGIN	AL								SEASONALLY ADJUSTED	TREND
Reference date	New South Wales	Victoria	Queens- land	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia	Australia	Australia
• • • • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	('(000)	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • • • • • •	• • • • • • •
1998					,	•					
August	33.1	22.3	19.9	3.6	7.9	* 1.2	* 1.5	2.0	91.6	85.4	93.0
November	30.2	34.4	14.6	* 6.0	8.6	* 0.8	0.9	1.6	97.2	97.1	89.4
1999											
February	30.5	15.6	18.3	5.2	7.7	* 1.3	1.6	2.5	82.8	82.8	89.9
May	37.5	22.1	10.9	4.4	8.3	* 2.0	* 1.3	2.4	88.9	95.8	94.5
August r	48.3	29.3	11.8	* 4.9	* 9.3	1.7	1.3	3.3	110.0	102.8	99.7
November	36.9	31.0	13.4	6.3	8.4	* 2.2	1.2	3.8	103.2	103.1	105.5
1998	• • • • • • • •	• • • • • •	PE	RCENTAG	E CHANGE	(from pre	evious qua	irter)	• • • • • • •	• • • • • • • • • • • •	• • • • • • •
August	29.3	-13.9	1.5	9.4	-43.2	85.0	-20.4	32.5	-0.9	-14.6	-2.5
November	-8.9	54.7	-26.6	64.9	9.2	-38.4	-40.1	-21.8	6.0	13.7	-3.9
1999	0.0	01.1	20.0	01.0	0.2	00.1	10.1	21.0	0.0	20.1	0.0
February	1.1	-54.7	25.5	-13.1	-10.9	66.5	79.4	54.6	-14.8	-14.7	0.6
May	22.6	41.9	-40.6	-16.7	8.6	58.1	-23.2	-1.1	7.4	15.7	5.1
August r	29.1	32.5	8.5	12.0	12.0	-17.4	1.3	37.2	23.7	7.3	5.5
November	-23.6	5.5	13.5	29.6	-10.6	33.7	-4.8	14.6	-6.2	0.3	5.8
• • • • • • • • • •	• • • • • • •	PFF	RCENTAGE	CHANGE	from corre	esnonding	guarter o	of previous	vear)		• • • • • • •
1997			.ozivi/.ac	J.IIIIII	(1.5111 6511)	coponania	quartor 0	, picvious	, , , , ,		
November 1998	-11.7	40.9	74.7	19.0	-31.4	-35.0	-37.4	-30.7	8.8	8.7	14.6
November 1999	5.8	52.5	-6.1	51.0	13.6	-9.5	7.7	38.6	13.9	14.0	1.9
November	22.2	-10.1	-8.3	5.1	-3.2	190.8	33.1	140.4	6.2	6.2	18.0

⁽a) Series adjusted - refer to paragraphs 9 to 12 of the Explanatory Notes

Estimates revised - refer to CHANGES IN THIS ISSUE on page 2



	ORIGIN	AL								SEASONALLY ADJUSTED	TREND
Reference date	New South Wales	Victoria	Queens- land	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia	Australia	Australia
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • •	(1000)	• • • • • •	• • • • • •	• • • • • • • •	• • • • • • • • • • • • •	• • • • • • •
1998						('000)					
August	29.3	20.4	* 18.2	3.0	6.7	* 1.1	* 1.3	* 0.8	80.8	74.7	82.4
November	26.3	32.5	12.5	* 5.4	7.3	* 0.7	* 0.5	0.4	85.6	85.6	78.0
1999											
February	26.6	13.3	16.4	* 4.6	6.2	* 1.1	* 1.3	* 0.7	70.1	70.7	77.7
May	33.7	19.6	* 9.0	* 3.8	6.9	* 1.8	* 1.0	* 0.9	76.8	82.8	81.3
August r	43.3	26.4	9.7	* 4.2	* 8.1	1.3	* 1.0	* 1.0	94.9	88.0	85.4
November	32.5	27.1	11.4	5.7	6.9	* 1.9	* 0.9	* 1.4	87.8	87.9	90.1
	• • • • • • •		• • • • • • •		• • • • • •	• • • • • • •	• • • • • •	• • • • • •		• • • • • • • • • • • •	• • • • • • •
			Р	ERCENTA	GE CHANG	GE (from p	revious qu	uarter)			
1998								•			
August	31.2	-16.2	0.4	3.2	-47.7	124.4	-15.6	15.4	-3.0	-17.1	-3.6
November	-10.2	59.4	-31.5	81.1	9.0	-38.7	-58.5	-53.8	6.0	14.7	-5.3
1999											
February	1.3	-59.3	31.5	-14.9	-15.2	62.1	141.4	86.0	-18.1	-17.5	-0.3
May	26.8	48.2	-45.3	-17.6	12.1	72.3	-21.5	28.2	9.5	17.1	4.6
August r	28.3	34.3	8.5	10.2	16.7	-30.4	-3.1	11.8	23.6	6.3	5.1
November	-24.8	2.9	17.0	34.9	-15.2	50.3	-6.4	37.8	-7.5	-0.1	5.5
• • • • • • • • • • •										• • • • • • • • • • • • •	• • • • • • •
		PE	RCENTAGE	CHANGE	(from co	rrespondir	ng quarter	of previo	us year)		
1997					,		0 1		, ,		
November	-15.4	43.0	76.0	19.0	-36.1	-38.0	-45.6	-53.8	6.8	6.6	13.8
1998											
November	5.8	60.6	-30.0	49.7	14.8	15.1	-5.1	-33.4	14.7	14.8	0.7
1999											
November	23.8	-16.6	-8.8	4.3	-5.9	192.3	71.9	267.3	2.6	2.6	15.6

⁽a) Series adjusted - refer to paragraphs 9 to 12 of the Explanatory Notes

Estimates revised - refer to CHANGES IN THIS ISSUE on page 2



	ORIGIN	AL								SEASONALLY ADJUSTED	TREND
Reference date	New South Wales	Victoria	Queens- land	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia	Australia	Australia
• • • • • • • • • • • •	• • • • • •	• • • • • •	• • • • • •	• • • • • •		'000)	• • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • • • • • • •	• • • • • •
1998					(000)					
August	3.9	1.9	1.7	0.6	1.2	0.2	0.2	1.2	10.9	10.7	10.6
November	3.9	1.9	2.1	0.6	* 1.3	0.1	0.4	* 1.2	11.6	11.5	11.4
1999											
February	4.0	* 2.4	1.9	0.6	* 1.5	0.2	0.4	1.8	12.6	12.1	12.2
May	3.7	2.5	1.9	0.5	* 1.4	0.2	0.3	1.5	12.1	13.0	13.2
August r	5.1	3.0	2.1	0.7	1.2	* 0.4	* 0.3	2.3	15.0	14.8	14.3
November	4.4	3.8	2.0	0.6	1.5	0.3	0.3	2.4	15.4	15.2	15.4
• • • • • • • • • • • •	• • • • • •	• • • • • •	Pl	ERCENTAG	GE CHANG	iE (from p	revious q	uarter)	• • • • • • • •	• • • • • • • • • • • •	• • • • • •
1998											
August	16.8	23.5	15.5	52.6	8.0	-10.9	-38.5	47.1	18.0	8.4	6.3
November 1999	1.2	3.0	26.7	-11.4	10.7	-37.0	55.0	-0.1	6.2	6.8	7.3
February	0.4	22.9	-9.7	3.8	13.0	93.0	-6.0	44.7	9.2	5.6	7.3
May	-5.3	6.1	-0.5	-9.7	-5.9	-13.0	-29.1	-12.9	-4.6	7.2	8.5
August r	35.7	18.7	8.3	24.9	-11.7	111.3	18.9	52.3	24.7	13.7	8.4
November	-13.7	28.6	-2.6	-4.0	19.3	-20.6	0.3	4.6	2.2	3.1	7.2
• • • • • • • • • • • •		• • • • • •		• • • • • •	• • • • • • •	• • • • • • •	• • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • •
		PE	RCENTAGE	CHANGE	(from cor	respondir	ng quarte	r of previo	us year)		
1997											
November 1998	25.1	24.9	63.7	18.5	11.7	-27.9	-11.7	36.6	25.2	24.9	20.9
November	6.0	-17.9	9.8	63.9	7.1	-60.2	32.2	109.3	8.1	7.9	10.0
1999											
November	11.3	99.1	-5.3	12.5	12.1	181.8	-20.5	100.8	32.8	32.7	35.4

⁽a) Series adjusted - refer to paragraphs 9 to 12 of the Explanatory Notes

Estimates revised - refer to CHANGES IN THIS ISSUE on page 2



JOB VACANCIES, Industry—Australia: Original (a)

	1998		1999	1999		
	August	November	February	May	August r	November
Industry	'000	'000	'000	'000	'000	'000
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • •	• • • • • • • •	• • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
Mining	1.3	1.2	1.3	1.1	1.0	0.9
Manufacturing	6.4	9.5	10.3	12.2	14.1	* 14.0
Electricity, gas and water supply	0.4	* 0.8	0.4	0.3	0.4	0.4
Construction	* 8.2	* 6.0	* 5.8	* 4.6	* 6.9	* 2.0
Wholesale trade	* 3.8	* 6.2	* 5.8	* 6.6	* 8.7	* 4.6
Retail trade	7.2	12.7	6.6	9.0	9.4	19.6
Accommodation, cafes and restaurants	7.7	* 12.2	* 10.5	8.9	7.8	9.3
Transport and storage	* 1.1	* 0.9	* 2.3	* 2.7	* 3.1	* 2.6
Communication services	0.3	* 0.7	0.5	1.2	1.1	1.8
Finance and insurance	3.5	2.2	2.2	3.1	* 3.9	3.3
Property and business services	* 27.5	* 19.8	9.0	* 17.2	* 25.2	* 19.1
Government administration and defence	4.3	4.6	4.8	4.7	6.1	5.8
Education	3.6	2.9	3.8	3.1	2.9	3.4
Health and community services	9.0	8.7	13.5	7.7	11.1	9.2
Cultural and recreational services	1.9	* 4.3	3.1	* 3.1	* 3.2	4.4
Personal and other services	* 5.4	* 4.6	* 2.8	* 3.4	* 5.2	* 2.8
All industries	91.6	97.2	82.8	88.9	110.0	103.2

Series adjusted - refer to paragraphs 9 to 12 of the Explanatory Notes (a)

Estimates revised - refer to CHANGES IN THIS ISSUE on page 2



JOB VACANCY RATES, States & Territories: Original (a)

Reference date	New South Wales	Victoria	Queens- land	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
• • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • •
				PER CE	NT				
1998									
August	1.32	1.01	1.52	0.64	1.13	* 0.83	* 1.90	1.50	1.20
November	1.17	1.58	1.12	* 1.15	1.26	* 0.50	1.14	* 1.09	1.27
1999									
February	1.11	0.73	1.40	0.96	1.12	* 0.84	2.06	1.64	1.06
May	1.38	1.05	0.87	0.82	1.15	* 1.37	* 1.52	1.64	1.15
August r	1.83	1.39	0.93	* 0.88	* 1.20	1.03	* 1.38	2.41	1.42
November	1.41	1.49	1.02	1.24	1.21	* 1.32	1.66	2.61	1.36
• • • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • •
			PERCENTAG	E CHANGE (fr	om previous d	juarter)			
1998									
August	24.2	-15.5	4.1	9.8	-40.6	83.3	-19.5	33.1	-1.8
November	-11.0	55.4	-26.2	78.5	12.4	-40.4	-40.1	-27.0	6.1
1999									
February	-5.1	-54.0	24.5	-16.2	-11.5	68.7	81.9	49.5	-16.7
May	23.7	45.2	-37.8	-14.3	2.7	64.0	-26.5	0.5	9.0
August r	32.9	31.8	6.6	7.0	4.5	-24.6	-8.8	46.6	23.0
November	-22.9	7.6	10.4	41.0	0.8	28.2	19.6	8.0	-4.1
• • • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • • • •	• • • • • • • • •	• • • • • • • • •	• • • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • • • •
		PERCENT	AGE CHANGE	(from correspo	onding quarte	r of previous y	/ear)		
1997									
November	-12.3	28.6	60.1	4.9	-34.7	-31.6	-40.1	-26.1	3.1
1998									
November	1.3	37.7	-24.1	73.9	26.0	-13.7	3.9	32.4	11.7
1999									
November	20.3	-5.3	-8.8	8.4	-4.3	167.2	45.9	138.0	7.1

Series adjusted - refer to paragraphs 9 to 12 of the Explanatory Notes

Estimates revised - refer to CHANGES IN THIS ISSUE on page 2

INTRODUCTION

SCOPE

- **1** This publication contains estimates of job vacancies for November 1999 based on information obtained from a sample survey of employers.
- **2** All wage and salary earners who received pay for the reference period are represented in the Job Vacancies Survey (JVS), except:
 - members of the Australian permanent defence forces;
 - employees of businesses primarily engaged in agriculture, forestry and fishing;
 - employees in private households employing staff;
 - employees of overseas embassies, consulates, etc.;
 - employees based outside Australia; and
 - employees on workers' compensation who are not paid through the payroll.
- **3** Also excluded are the following persons who are not regarded as employees for the purposes of this survey:
 - directors who are not paid a salary;
 - proprietors/partners of unincorporated businesses;
 - self-employed persons such as subcontractors, owner/drivers, consultants;
 and
 - persons paid solely by commission without a retainer.
- **4** All vacancies (as defined in the Glossary) for wage and salary earners are represented in the JV Survey, except those:
 - in the Australian permanent defence forces;
 - in businesses primarily engaged in agriculture, forestry and fishing;
 - in private households employing staff;
 - in overseas embassies, consulates, etc.; and
 - located outside Australia.

SURVEY DESIGN

- **5** A sample of approximately 4,500 employers is selected from the Australian Bureau of Statistics (ABS) Business Register to ensure adequate State and industry representation. The sample is updated each quarter to reflect changes in the ABS register of businesses. These changes arise from the emergence of new businesses, takeovers and mergers, changes to industry classification, changes in the number of employees, and businesses which have ceased operations. Such updating of the register can contribute to changes in the estimates of job vacancies.
- **6** The statistical unit for the survey comprises all activities of an employer in a particular State or Territory. Each statistical unit is classified to an industry which reflects the predominant activity of the business in the State or Territory. The statistical units are stratified by State, industry and size of employment and an equal probability sample is selected from each stratum.

NOTES ON ESTIMATES

7 From 17 March 1998, changes in public service regulations have meant that most Australian Public Service vacancies, previously only available to current public service employees, are open to all Australian citizens. These vacancies now fall within the definition of a job vacancy used for compiling statistics in this publication, and have therefore been included from the May 1998 reference period.

NOTES ON ESTIMATES continued

- **8** Improvements to the survey estimation method were introduced in November 1999 to ensure that job vacancy statistics relate to all businesses operating at the time of the survey. Each quarter, adjustments to the estimates are made to account for the time lag between businesses commencing operation and their inclusion in the list of businesses eligible for selection in the survey. The adjustment is made for the private sector only.
- **9** Coincident with the dropping of the overtime component from the collection, a number of improvements to survey operations commenced during August 1999 and were completed in November 1999. These included:
 - revised collection forms, with improved question design;
 - improved collection procedures to ensure consistent and accurate reporting by businesses;
 - review of business contacts to ensure that the most appropriate person reports job vacancies data; and
 - intensive checking to ensure "whole of business" vacancies are reported.
- **10** Analysis of subsequent reported data showed that these initiatives resulted in an increase in job vacancy estimates for the private sector. There was negligible impact on the public sector estimates from these initiatives.
- **11** As an aid to users, previously published estimates of the job vacancies series have been adjusted to provide a comparable and compatible time series. Based on an analysis of estimates from the August 1999 and November 1999 surveys, an adjustment factor of 1.3 was applied to the State and industry level estimates of the private sector component of the series up to August 1999. This method links historical estimates of job vacancies for periods before the introduction of the quality improvements by preserving the previously published quarterly percentage movement estimates at industry, State/Territory, and Australia level. Accordingly, only level estimates of job vacancies have changed.
- **12** This adjustment factor accounts for the impact of the quality initiatives and the change in estimation methodology outlined in paragraphs 8 and 9 of the Explanatory Notes. The original (reported) public sector component was then added to the adjusted private sector estimates to produce revised estimates of total vacancies at industry, State/Territory, and Australia levels.
- **13** Job vacancies series in this publication were introduced with the November 1983 issue of the Job Vacancies and Overtime survey publication. Estimates contained in this publication are not strictly comparable with those obtained prior to November 1983
- contained in this publication are not strictly comparable with those obtained prior to November 1983.

 14 Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to
- seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular or non-seasonal influences which may be present in any particular period. Influences that are volatile or unsystematic can still make it difficult to interpret the movement of the series even after adjustment for seasonal variation. This means that quarter-to-quarter movements of seasonally adjusted estimates may not be reliable indicators of trend behaviour.
- **15** The series have been seasonally adjusted from February 1984 and the historical series can be made available on request. The seasonal factors are reviewed annually to take account of each additional year's original data. The review takes place for the November reference period each year.
- **16** Details about the method of seasonal adjustment of these series are available on request.

HISTORICAL SERIES

SEASONAL ADJUSTMENT

TREND ESTIMATES

- **17** The ABS considers that trend estimates provide a more reliable guide to the underlying direction of the data, and are more suitable than either the seasonally adjusted or original estimates for most business decisions and policy advice.
- **18** The trend estimates in this publication, obtained by dampening out the irregular component from the seasonally adjusted series, are calculated using a centred 7–term Henderson moving average of the seasonally adjusted series. Estimates for the three most recent quarters cannot be calculated using this centred average method; instead an asymmetric average is used. This can lead to revisions in the trend estimates for the last three quarters when data become available for later quarters. Revisions of trend estimates will also occur with revisions to the original data and re-estimation of seasonal adjustment factors
- **19** If a series is highly volatile then the trend estimates will be subject to greater revision for the latest few quarters as data become available. However, it is important to note that this does not make the trend series inferior to the seasonally adjusted or original series. In some cases the effect of the irregular component on overall movements will remain in the seasonally adjusted and the original estimates but not in the trend series
- **20** For more information, see *A Guide to Interpreting Time Series Monitoring Trends': an Overview* (Cat. no. 1348.0); or contact the Assistant Director, Time Series Analysis on 02 6252 6345.
- **21** Two feature articles which have appeared in the ABS monthly publication *Australian Economic Indicators* (Cat. no. 1350.0) may also be of interest:
 - Picking Turning Points in the Economy (April 1991)
 - Smarter Data Use (March 1992).
- **22** Users may also wish to refer to the following publications which are available from ABS Bookshops:
 - Labour Force, Australia (Cat. no. 6203.0)—issued monthly
 - Average Weekly Earnings, States and Australia (Cat. no. 6302.0)—issued quarterly
 - Average Weekly Earnings, Australia 1941–1990 (Cat. no. 6350.0—issued February 1992
 - Wage Cost Index, Australia (Cat. no. 6345.0)—issued quarterly
 - Wage and Salary Earners, Australia (Cat. no. 6248.0)—issued quarterly
 - Employee Earnings and Hours, Australia (Cat. no. 6306.0)—issued biennially.
- **23** Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (Cat. no. 1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (Cat. no. 1105.0) which lists publications to be released in the following few days. The Catalogue and Release Advice are available from any ABS office.

RELATED PUBLICATIONS

UNPUBLISHED STATISTICS

24 In some cases, the ABS can also make available information which is not published. This information may be made available in one or more of the following forms: hardcopy, data tape, floppy disk and Internet Email. Generally, a charge is made for providing unpublished information. Inquiries should be made to Brad Pottinger on 08 9360 5304 or Client Services in the nearest ABS office.

ROUNDING

25 Where figures have been rounded, discrepancies may occur between sums of the component items and totals. Percentage changes in the Key Figures, Key Points and publication tables are based on unrounded numbers and consequently could differ from percentage changes that are calculated from the published rounded statistics.

TECHNICAL NOTES

RELIABILITY OF ESTIMATES

- **1** As the estimates in this publication are based on information relating to a sample of employers rather than a full enumeration, they are subject to sampling variability. That is, they may differ from the estimates that would have been produced if the information had been obtained from all employers. This difference, called *sampling error*, should not be confused with inaccuracy that may occur because of imperfections in reporting by respondents or in processing by the ABS. Such inaccuracy is referred to as *non-sampling error* and may occur in any enumeration whether it be a full count or sample. Efforts have been made to reduce non-sampling error by careful design of questionnaires, detailed checking of returns and quality control of processing.
- **2** The sampling error associated with any estimate can be estimated from the sample results. One measure of sampling error is given by the *standard error* which indicates the degree to which an estimate may vary from the value which would have been obtained from a full enumeration (the 'true value'). There are about two chances in three that a sample estimate differs from the true value by less than one standard error, and about 19 chances in 20 that the difference will be less than two standard errors.
- **3** An example of the use of a standard error on levels is as follows. If the estimated number of job vacancies was 25,000 with a standard error of 2,500, then there would be about two chances in three that a full enumeration would have given an estimate in the range 22,500 to 27,500 and about 19 chances in 20 that it would be in the range 20,000 to 30,000.
- **4** An example of the use of a standard error for a quarterly change estimate is as follows. If the estimated standard error for a quarterly change estimate of job vacancies was 1,000 and the quarterly change estimate between two quarters was 4,500, then there would be about two chances in three that a full enumeration would have given a quarterly change estimate in the range +3,500 to +5,500 and about 19 chances in 20 that it would be in the range +2,500 to +6,500.
- **5** Quarterly movements in estimates of job vacancies are considered to be statistically significant where they exceed two standard errors.
- **6** Another measure of the sampling error is the relative standard error, which is obtained by expressing the standard error as a percentage of the estimate. Level estimates with a relative standard error of 25% or more, denoted with an asterisk in this publication, are subject to sampling variability generally considered to be too high for most practical purposes.



STANDARD ERRORS, Job Vacancies—States & Territories

	LEVEL				QUARTERLY MOVEMENT			
	JOB VACANCIES		JOB VACANCY RATES	JOB VACANCIES			JOB VACANCY RATES	
	Total	Private	Public	Total	Total	Private	Public	Total
States & Territories	'000	'000	'000	%	'000	'000	'000	%
• • • • • • • • • • • • • • • • • • • •	• • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • • •	• • • • • • • • •
New South Wales	5.0	5.0	0.7	0.17	6.2	6.2	0.6	0.22
Victoria Queensland	6.1 2.8	6.1 2.8	0.5 0.2	0.27 0.21	3.6 3.4	3.6 3.4	0.5 0.3	0.17 0.26
South Australia	1.3	1.3	0.1	0.25	2.0	1.9	0.1	0.36
Western Australia	1.4	1.4	0.4	0.20	2.3	2.3	0.3	0.31
Tasmania	0.6	0.6	0.0	0.33	0.5	0.5	0.0	0.32
Northern Territory	0.2	0.2	0.0	0.31	0.3	0.3	0.0	0.40
Australian Capital Territory	0.8	0.7	0.1	0.50	0.9	8.0	0.2	0.59
Australia	8.6	8.6	0.9	0.11	8.6	8.5	1.0	0.11



STANDARD ERRORS, Job Vacancies—Industry

	1998		1999	1999			
	August	November	February	May	August	November	
Industry	'000	'000	'000	'000	'000	'000	
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • •
Mining	0.3	0.3	0.4	0.2	0.1	0.1	
Manufacturing	1.3	2.4	2.8	3.3	3.1	3.9	
Electricity, gas and water supply	0.1	0.3	0.0	0.1	0.0	0.0	
Construction	4.5	3.6	5.1	3.0	2.8	0.9	
Wholesale trade	1.6	2.0	2.3	3.5	2.6	1.3	
Retail trade	1.2	3.8	1.3	2.3	2.2	3.6	
Accommodation, cafes and restaurants	2.1	4.0	4.5	2.3	1.7	2.0	
Transport and storage	0.5	0.3	1.1	1.6	0.8	0.8	
Communication services	0.1	0.2	0.0	0.1	0.0	0.3	
Finance and insurance	0.9	0.6	0.5	0.7	0.8	0.6	
Property and business services	9.5	9.5	2.6	5.6	6.5	6.0	
Government administration and defence	0.3	0.6	0.3	0.4	0.6	0.5	
Education	0.7	0.4	0.9	0.8	0.3	0.3	
Health and community services	1.8	1.9	2.8	1.1	2.0	0.9	
Cultural and recreational services	0.4	1.3	0.9	1.2	0.9	0.7	
Personal and other services	2.5	2.1	1.7	1.7	1.9	1.2	
All industries	10.9	11.8	8.6	8.6	9.2	8.6	

Industry

Industry is classified according to the Australian and New Zealand Standard Industrial Classification. For more details refer to the *Australian and New Zealand Standard Industrial Classification 1993 (ANZSIC)* (Cat. no. 1292.0).

Job vacancy

A job vacancy is a job available for immediate filling on the survey reference date and for which recruitment action had been taken. Recruitment action includes efforts to fill vacancies by advertising, by factory notices, by notifying public or private employment agencies or trade unions and by contacting, interviewing or selecting applicants already registered with the enterprise or organisation. Excluded are vacancies:

- for jobs which became vacant on the survey date and were filled that same day;
- for jobs of less than one day's duration;
- to be filled by persons already hired, or by promotion or transfer of existing employees;
- to be filled by employees returning from paid or unpaid leave or after industrial dispute(s);
- not available for immediate filling on the survey reference date;
- not available within the particular State or Territory to which the return relates;
- for work to be carried out by contractors;
- for which no recruitment action has been taken;
- where a person has been appointed but has not yet commenced duty;
- to be filled by staff from contract labour agencies; and
- for jobs available only to persons already employed by the enterprise or organisation.

Job vacancy rate

The job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies.

Number of employees

All wage and salary earners who received pay for any part of the relevant pay period. The relevant pay period is the last pay period ending on or before the survey reference date. All permanent, temporary, casual, managerial and executive employees are included. Part-time and casual employees who may have received pay for only a few hours during the reference period are included. Employees on paid leave and those employees on workers' compensation who continue to be paid through the employer's payroll are also included. Casual employees who work on an irregular basis and who were not paid during the relevant pay period, employees on leave without pay, on strike or stood down without pay for the whole of the pay period are excluded.

Reference date

Reference date for the survey is the third Friday of the middle month of the quarter. The reference date for the current survey is 19 November 1999.

Sector

Public sector includes all local government authorities and government departments, agencies and authorities created by, or reporting to the Commonwealth Parliament and State/Territory Parliaments. All remaining employees are classified as private sector.

SELF-HELP ACCESS TO STATISTICS

CPI INFOLINE For current and historical Consumer Price Index data.

call 1902 981 074 (call cost 75c per minute).

DIAL-A-STATISTIC For the latest figures for National Accounts, Balance of

Payments, Labour Force, Average Weekly Earnings, Estimated Resident Population and the Consumer Price Index call 1900 986 400 (call cost 75c per minute).

INTERNET www.abs.gov.au

LIBRARY A range of ABS publications is available from public and

> tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics

you require.

WHY NOT SUBSCRIBE?

+61 1300 366 323 PHONE

FAX +61 3 9615 7848

CONSULTANCY SERVICES

ABS offers consultancy services on a user pays basis to help you access published and unpublished data. Data that is already published and can be provided within 5 minutes is free of charge. Statistical methodological

services are also available. Please contact:

INQUIRIES	City	By phone	By fax
	Canberra	02 6252 6627	02 6207 0282
	Sydney	02 9268 4611	02 9268 4668
	Melbourne	03 9615 7755	03 9615 7798
	Brisbane	07 3222 6351	07 3222 6283
	Perth	08 9360 5140	08 9360 5955
	Adelaide	08 8237 7400	08 8237 7566
	Hobart	03 6222 5800	03 6222 5995
	Darwin	08 8943 2111	08 8981 1218

POST Client Services, ABS, PO Box 10, Belconnen ACT 2616

EMAIL client.services@abs.gov.au

© Commonwealth of Australia 2000



RRP \$16.00